

WHAT IS CLAIMED IS:

1. A molded article comprising
high molecular weight α -1,4-glucan and/or its modification, and
low molecular weight α -1,4-glucan and/or its modification, wherein
5 the low molecular weight α -1,4-glucan has a degree of polymerization of greater
than or equal to 180 and less than 620, and
the high molecular weight α -1,4-glucan has a degree of polymerization of
greater than or equal to 620 and less than 37000.

10 2. A molded article according to Claim 1, wherein the low molecular
weight α -1,4-glucan has the degree of polymerization of greater than or equal to
180 and less than 560, and the high molecular weight α -1,4-glucan has the
degree of polymerization of greater than or equal to 680 and less than 37000.

15 3. A molded article according to Claim 1 or 2, wherein the low molecular
weight α -1,4-glucan has a molecular weight distribution of not greater than 1.25,
and the high molecular weight α -1,4-glucan has a molecular weight distribution
of not greater than 1.25.

20 4. A molded article according to any one of Claims 1 to 3, wherein the α -
1,4-glucans are enzyme-synthesized α -1,4-glucan.

25 5. A molded article according to any one of Claims 1 to 4, wherein the
modification of the α -1,4-glucans is a chemical modification selected from the
group consisting of esterification, etherification and crosslinking.

6. A molded article according to any one of Claims 1 to 5, wherein a weight ratio of high molecular weight α -1,4-glucan and/or its modification : low molecular weight α -1,4-glucan and/or its modification is within the range of 99:1 to 25:75.

7. A molded article according to any one of Claims 1 to 5, wherein a weight ratio of high molecular weight α -1,4-glucan and/or its modification : low molecular weight α -1,4-glucan and/or its modification is within the range of 99:1 to 50:50.

8. A molded article according to any one of Claims 1 to 5, wherein a weight ratio of high molecular weight α -1,4-glucan and/or its modification : low molecular weight α -1,4-glucan and/or its modification is within the range of 99:1 to 75:25.

9. A molded article according to any one of Claims 1 to 8, wherein the molded article is film, sheet, coating, fiber, yarn, non-woven fabric, a food container, an edible container, a medical material, a medical device or a gelatinous molded article.

10. A molded article according to any one of Claims 1 to 8, wherein the molded article is a contact-type food container which directly covers a surface of an agricultural product or a food product.

11. A molded article according to any one of Claims 1 to 8, wherein the molded article is a hard capsule, a soft capsule or a seamless capsule.

12. A molded article according to any one of Claims 1 to 8, wherein the
5 molded article is a feed for an animal, a food or a food additive.

13. A process for preparing a molded article comprising high molecular weight α -1,4-glucan and/or its modification and low molecular weight α -1,4-glucan and/or its modification, wherein the process comprises the step of:
10 adding the low molecular weight α -1,4-glucan and/or its modification to a solution comprising the high molecular weight α -1,4-glucan and/or its modification to gel the solution.

14. A process for preparing a molded article comprising high molecular
15 weight α -1,4-glucan and/or its modification and low molecular weight α -1,4-glucan and/or its modification, wherein the process comprises the step of:
cooling a solution comprising the high molecular weight α -1,4-glucan and/or its modification and the low molecular weight α -1,4-glucan and/or its modification to gel the solution.

20 15. A process for preparing a molded article comprising high molecular weight α -1,4-glucan and/or its modification and low molecular weight α -1,4-glucan and/or its modification, wherein the process comprises the step of:
neutralizing an alkaline solution comprising the high molecular weight α -
25 1,4-glucan and/or its modification and the low molecular weight α -1,4-glucan

and/or its modification to gel the solution.

16. A process for preparing a molded article according to any one of Claims 13 to 15, wherein

5 the low molecular weight α -1,4-glucan has a degree of polymerization of greater than or equal to 180 and less than 620, and has a molecular weight distribution of not greater than 1.25 and,

10 the high molecular weight α -1,4-glucan has a degree of polymerization of greater than or equal to 620 and less than 37000, and has a molecular weight distribution of not greater than 1.25.

17. A process for preparing a molded article according to any one of Claims 13 to 15, wherein

15 the low molecular weight α -1,4-glucan has a degree of polymerization of greater than or equal to 180 and less than 560, and has a molecular weight distribution of not greater than 1.25 and,

20 the high molecular weight α -1,4-glucan has a degree of polymerization of greater than or equal to 680 and less than 37000, and has a molecular weight distribution of not greater than 1.25.

18. A process for preparing a molded article according to Claim 16 or 17, wherein the α -1,4-glucans are enzyme-synthesized α -1,4-glucan.

25 19. A process for preparing a molded article according to any one of Claims 13 to 18, wherein the modification of the α -1,4-glucans is a chemical

modification selected from the group consisting of esterification, etherification and crosslinking.

20. A process for preparing a molded article according to any one of
5 Claims 13 to 19, wherein a weight ratio of the high molecular weight α -1,4-glucan and/or its modification and the low molecular weight α -1,4-glucan and/or its modification is within the range of 99:1 to 25:75.

21. A process for preparing a molded article according to any one of
10 Claims 13 to 19, wherein a weight ratio of high molecular weight α -1,4-glucan and/or its modification : low molecular weight α -1,4-glucan and/or its modification is within the range of 99:1 to 50:50.

22. A process for preparing a molded article according to any one of
15 Claims 13 to 19, wherein a weight ratio of high molecular weight α -1,4-glucan and/or its modification : low molecular weight α -1,4-glucan and/or its modification is within the range of 99:1 to 75:25.

23. Use of low molecular weight α -1,4-glucan with a degree of
20 polymerization of greater than or equal to 180 and less than 620, in the step of gelling a solution containing α -1,4-glucan.